

# INTERNATIONAL SEARCH REPORT

International application No.  
**PCT/NZ2004/000331**

**A. CLASSIFICATION OF SUBJECT MATTER**

Int. Cl. <sup>7</sup>: **G06F 17/60**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

DWPI, PCT, USPTO (black-scholes, default loss, implied volatility, credit risk, option, derivative, security, asset, pricing, valuing, risk, correlation, covariance, etc.)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| X         | WO 2003/034297 A1 (SUPERDERIVATIVES, INC.), 24 April 2003<br>the whole document    | 44, 95, 146           |
| A         | US 2003/0139993 A1 (FEUERVERGER), 24 July 2003<br>the whole document               | 1-164                 |
| A         | US 2001/0056392 A1 (DAUGHTERY, II), 27 December 2001<br>the whole document         | 1-164                 |
| A         | US 2002/0065755 A1 (SHLAFMNA et al), 30 May 2002<br>the whole document             | 1-164                 |

☒ Further documents are listed in the continuation of Box C

☒ See patent family annex

|   |  |
|---|--|
| * Special categories of cited documents:  |  |
| "A" document defining the general state of the art which is not considered to be of particular relevance  | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  |
| "E" earlier application or patent but published on or after the international filing date   | "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone   |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "O" document referring to an oral disclosure, use, exhibition or other means  | "&" document member of the same patent family  |
| "P" document published prior to the international filing date but later than the priority date claimed  |  |

Date of the actual completion of the international search  
**5 April 2005**

Date of mailing of the international search report  
**18 APR 2005**

Name and mailing address of the ISA/AU  
AUSTRALIAN PATENT OFFICE  
PO BOX 200, WODEN ACT 2606, AUSTRALIA  
E-mail address: pct@ipaustalia.gov.au  
Facsimile No. (02) 6285 3929

Authorized officer  
**MATTHEW HOLLINGWORTH**  
Telephone No : (02) 6283 2024

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C (Continuation).

DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages         | Relevant to claim No. |
|-----------|--|-----------------------|
| A, P      | WO 2001/052121 A2 (CANADIAN IMPERIAL BANK OF COMMERCE), 19 July 2001<br>the whole document | 1-164                 |
| A, P      | WO 2003/107137 A2 (KONGTCHEU), 24 December 2003<br>the whole document                      | 1-164                 |
| A, P      | US 2004/0064393 A1 (LUENBERGER), 1 April 2004<br>the whole document                        | 1-164                 |
| A, P      | US 2004/0039673 A1 (AMBERSON et al), 26 February 2004)<br>the whole document               | 1-164                 |

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## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See extra sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

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## Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

### Continuation of Box No: III

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are two inventions:

1. Independent claims 1, 13, 52, 58, 60, 64, 95, 103, 109, 115 and 146. The correlating of two securities associated with an underlying asset is considered to be a first "special technical feature."
2. Independent claims 44, 95 and 146. The solution of an option-theoretic model for user-specified parameters is a second "special technical feature."

Since the abovementioned groups of claims do not share any technical features, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly, the international application does not relate to one invention or to a single inventive concept.

However, since little extra effort is required to search the second invention, an additional search fee is not warranted.

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent Document Cited in Search Report  |            | Patent Family Member |            |    |            |
|---|------------|----------------------|------------|----|------------|
| WO  | 03034297   | CA                   | 2463608    | EP | 1444617    |
|   |            |                      |            | US | 2005027634 |
| US  | 2003139993 | AU                   | 46268/01   | WO | 0177911    |
| US  | 2001056392 | AU                   | 26012/95   | AU | 38647/00   |
|   |            | BR                   | 9712053    | CA | 2196042    |
|   |            | CN                   | 1232568    | EP | 1015996    |
|   |            | NZ                   | 334669     | US | 5557517    |
|   |            | US                   | 6263321    | WO | 0052622    |
|   |            | WO                   | 9812658    |    |            |
| US  | 2002065755 | NONE                 |            |    |            |
| WO  | 0152121    | AU                   | 21336/01   | CA | 2326925    |
|   |            |                      |            | EP | 1272950    |
| WO  | 03107137   | AU                   | 2003243629 |    |            |
| US  | 2004064393 | WO                   | 2004008274 |    |            |
| US  | 2004039673 | US                   | 2004034587 |    |            |
| Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001. |            |                      |            |    |            |
| END OF ANNEX  |            |                      |            |    |            |